

Remarks

Reconsideration is requested in view of the following remarks. Claims 16, 24-26, 33-45, 47 and 50 were previously canceled without prejudice or disclaimer. Claims 1-15, 17-23, 27-32, 46, 48, and 49 are pending. No claims are amended in this response.

Applicants would like to thank the Examiner for the telephone interview on February 25, 2003 with Applicant's representatives, John Gresens and James Larson. During the interview, Applicant's representatives explained why the 35 USC 101 rejection was inapplicable, and explained why the claims are patentable over Burkart et al. (CA 2,073,092) and Gofuku et al. (US 5,269,868). No final agreement was reached concerning the allowability of any claims, although it is Applicant's understanding that the 35 USC 101 rejection will be withdrawn for the reasons discussed further below.

35 USC 101 rejection

Turning now to the office action, claims 1-7, 10-32 and 48 are provisionally rejected under 35 USC 101 as claiming the same invention as that of claims 1-10, 13-18, 21-25, 30-34, 38-41 and 45-46 of copending application 09/346,375. Applicants respectfully traverse this rejection.

To constitute the same invention, identical subject matter must be claimed. MPEP 804(II)(A), Original 8th Ed., Rev. 1, Feb. 2003. In the current case, it is clear that the pending claims are not claiming the identical subject matter as the claims in 09/346,375. For example, application claim 1 recites an electrical gas discharge light delivery apparatus. This feature is not recited in claim 1 of 09/346,375. Further, claim 1 of 09/346,375 recites "...to inhibit a following light pulse event if the time elapsing after a preceding light pulse event is less than a predetermined time or greater than a predetermined time". This feature is not recited in claim 1 of this application. Other distinctions can be clearly seen upon comparison of the claims in this application with the claims in 09/346,375.

Therefore, the same invention is not being claimed, and withdrawal of the rejection is requested.

35 USC 103(a) rejection

The Examiner has also rejected claims 1-15, 17-23, 27-32, 46 and 48-49 under 35 USC § 103(a) as being unpatentable over Burkart et al. (CA 2,073,092) in view of Gofuku et al. (US 5,269,868). Applicants respectfully traverse this rejection.

Claims 1-15, 17-23, 27-32, 48 and 49

Claim 1 is an independent claim, with claims 2-15 and 17-18 depending thereon. Claim 19 is an independent claim, with claims 20-23 and 27-32 depending thereon. Claims 48 and 49 are independent claims. If claim 1, 19, 48 or 49 is found allowable, any claim depending thereon is allowable as well. Therefore, only the independent claims need be addressed at this time. By not separately addressing a dependent claim, Applicant's are not conceding the rejection thereto, and Applicant's reserve the right to file arguments at a later date specifically addressing one or more of the dependent claims.

Independent claims 1, 19, 48 and 49 recite, among other features, either a method that uses, or an apparatus that includes, an electrical gas discharge light energy delivery apparatus (claims 1 and 19) or an electric gas discharge tube (claims 48 and 49).

On page 4 of the office action, the Examiner disagreed with Applicant's previous arguments because the heating taught by Burkart et al. allegedly "encompasses light energy as per instant claims". Applicant's respectfully submit that the Examiner's statement does not reflect the pending claims. Burkart et al. does disclose heating using "high frequency, micro wave or infrared radiation" (page 15, lines 1-4). However, this is not what is claimed. As indicated in the immediately preceding paragraph, claims 1 and 19 recite a method and an apparatus, respectively, each of which includes an electrical gas discharge light delivery apparatus. Claims 48 and 49 recite a method and a glazing releaser, respectively, each of which includes an electric gas discharge tube. Burkart et al. does not disclose that the heating disclosed therein is performed by, or using, an electrical gas discharge light delivery apparatus (as claimed in claims 1 and 19) or an electric gas discharge tube (as claimed in claims 48 and 49).

An electric-discharge device contains a gas, for example Xenon or Krypton (page 10, lines 4-6). Light is produced by an electric discharge that occurs between electrodes in the gas. See the enclosed definition of discharge lamp from the McGraw-Hill Dictionary of Scientific and Technical Terms, 2nd Ed. (1978), pg. 467.

As disclosed, an advantage of an electrical gas discharge light delivery apparatus or electric gas discharge tube, as opposed to other light, such as laser light, is that the energy attenuates rapidly with distance from the apparatus (see, for example, page 12, lines 1-2). Therefore, the energy is sufficient to achieve de-bonding of the panel, but there is less risk in accidentally (or as a result of misuse) harming an operator or damaging structure that underlies the panel, for example the interior trim of a vehicle (see, for example, page 12, lines 3-6).

Burkart et al. does not teach an electrical gas discharge light delivery apparatus or electric gas discharge tube, nor any of the advantages that arise therefrom. Burkart et al. teaches a releasable joint between two elements. The joint includes at least one adhesive bead and a heatable separating member that is heated to effect release of the joint. Burkart et al. discloses heating the member using electric energy, high frequency, micro wave or infrared radiation (page 11, lines 1-12). There is simply no mention of an electrical gas discharge light delivery apparatus or electric gas discharge tube.

Likewise, Gofuku et al. does not teach an electrical gas discharge light delivery apparatus or electric gas discharge tube, nor any of the advantages that arise therefrom. Gofuku et al. teaches a method of separating bonded substrates that are used in a liquid crystal display device. The substrates includes first and second glass sheets 1, 2 and an adhesive 5 between the sheets. A laser beam 8 is used to heat the adhesive 5 to permit release of the sheets. However, a laser is not an electrical gas discharge light delivery apparatus or an electric gas discharge tube.

Therefore, Burkart et al. and Gofuku et al. do not render claims 1, 19, 48 or 49 unpatentable, because, even if combined, the claimed invention does not result. The combined teachings of the references fail to teach an electrical gas discharge light delivery apparatus or electric gas discharge tube.

Claim 46

Claim 46 is an independent claim that recites a method of releasing a windscreen panel from a frame. The panel includes first and second layers that are transparent to wavelengths in the visible range of the spectrum and an interlayer between the first and second layers. The second layer includes a frit layer on an inside face thereof. The method includes directing pulsed light output from a light delivery mechanism at the frit layer, providing the pulsed light at a wavelength absorbed by the frit layer, and moving the light output along a path of the frit layer at a predetermined rate to carbonize the frit layer to effect release of the panel from the frame.

There are features recited in claim 46 that are not taught by Burkart et al. or Gofuku et al., singly or in combination. These features include a panel with first and second layers, pulsed light, a frit layer, and carbonization of the frit layer.

During the above-referenced telephone interview, the Examiner suggested that Burkart et al. discloses a frit layer, or alternatively, that a frit layer is known in the art. Applicants have carefully reviewed Burkart et al. but can find no mention of a frit layer. Applicants request that the Examiner provide a specific page and line number in Burkart et al. that discloses a frit layer.

Further, even if a frit layer is known in the art, the invention recited in claim 46 still does not result. There is no disclosure that the panel 110 in Burkart et al. includes first and second layers. Instead, as illustrated, the panel 110 is a single layer.

In addition, Burkart et al. does not teach the use of pulsed light that is at a wavelength that is absorbed by a frit layer, and carbonization of the frit layer. As disclosed by Applicants, pulsing the light allows absorbed heat to be dissipated, thereby avoiding the problems that are present with the use of continuous light energy (page 9, line 18 to page 10, line 1). The light energy in Burkart et al. appears to be continuous. Therefore, even if Burkart et al. were to include a frit layer, there is no teaching of using pulsed light that is absorbed by the frit layer, carbonization of the frit layer, or any of the advantages from using pulsed light.

Likewise, Gofuku et al. does not teach a frit layer, the use of pulsed light that is at a wavelength that is absorbed by the frit layer, and the carbonization of the frit layer.

Because these features are not taught individually by the references, the features are not suggested by a combination of the references.

Therefore, Burkart et al. and Gofuku et al. do not render claim 46 unpatentable.

For at least the reasons discussed above, all pending claims are patentable over Burkart, et al. and Gofuku et al. Withdrawal of the rejection is requested.

CONCLUSION

In view of the foregoing remarks, Applicants respectfully request favorable action on this matter. If a telephone conference would be helpful in resolving any remaining issue in this application, the Examiner is invited to contact the undersigned by telephone at the number provided below.


Respectfully submitted,

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Date:

May 30, 2003

By


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Second Edition

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In addition, material has been drawn from the following references: R. E. Huschke, *Glossary of Meteorology*, American Meteorological Society, 1959; *U.S. Air Force Glossary of Standardized Terms*, AF Manual 11-1, vol. 1, 1972; *Communications-Electronics Terminology*, AF Manual 11-1, vol. 3, 1970; W. H. Allen, ed., *Dictionary of Technical Terms for Aerospace Use*, 1st ed., National Aeronautics and Space Administration, 1965; J. M. Gilliland, *Solar-Terrestrial Physics: A Glossary of Terms and Abbreviations*, Royal Aircraft Establishment Technical Report 67158, 1967; *Glossary of Air Traffic Control Terms*, Federal Aviation Agency; *A Glossary of Range Terminology, White Sands Missile Range, New Mexico*, National Bureau of Standards, AD 467-424; *A DOD Glossary of Mapping, Charting and Geodetic Terms*, 1st ed., Department of Defense, 1967; P. W. Thrush, comp. and ed., *A Dictionary of Mining, Mineral, and Related Terms*, Bureau of Mines, 1968; *Nuclear Terms: A Glossary*, 2d ed., Atomic Energy Commission; F. Casey, ed., *Compilation of Terms in Information Sciences Technology*, Federal Council for Science and Technology, 1970; *Glossary of Stinfo Terminology*, Office of Aerospace Research, U.S. Air Force, 1963; *Naval Dictionary of Electronic, Technical, and Imperative Terms*, Bureau of Naval Personnel, 1962; *ADP Glossary*, Department of the Navy, NAVSO P-3097.

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dirigible disconnecter release

integral of $f(x) \cdot \sin(kx)/x$; its convergence determines the convergence of the Fourier series of $f(x)$.

dirigible [AERO ENG] A lighter-than-air craft equipped with means of propelling and steering for controlled flight.

dirty band [GEOLOG] A dark layer in a glacier representing a former surface, usually a summer surface, where silt and debris accumulated.

dirty bed [GEOLOG] A buried soil containing partially decayed organic material; sometimes occurs in glacial drift.

dirty bomb [ORD] An explosive based on nuclear fission that emits many long-lived radioactive isotopes.

dirty ship [NAV ARCH] Tanker carrying oil or heavy petroleum products.

dirty snowball model [ASTRON] A model of comet structure in which the nucleus of the comet resembles a large dirty snowball.

disability glare See glare.

disaccharide [BIOCHEM] Any of the class of compound sugars which yield two monosaccharide units upon hydrolysis.

disappearing carriage [ORD] A movable part for raising a heavy gun above a parapet and lowering it automatically after firing.

disappearing filament pyrometer See optical pyrometer.

disappearing stair [BUILD] A stair that can be swung up into a ceiling space.

disappearing target [ORD] Target that is exposed to the fire's view for a short time; for example, bobbing targets or targets raised from target pits for short periods of time.

disarm [ORD] To remove the detonating device or fuse of a bomb, mine, or other piece of explosive ordnance, or otherwise render it incapable of exploding in its usual manner.

disassemble [ENG] To take apart into constituent parts.

Disasteridae [PALEON] A family of extinct burrowing, exocyclic Euechinoides in the order Holasteroidea comprising mainly small, ovoid forms without fascioles or a plastron.

disc See disk.

discarding petal [ORD] A part of a discarding sabot that is composed of a base and attached pieces, or petals, which surround the core, and are peeled back under centrifugal and aerodynamic forces and discarded just in front of the gun muzzle.

Discellaceae [MYCOL] A family of fungi of the order Sphaeropodiales, including saprophytes and some plant pathogens.

discharge [ELEC] To remove a charge from a battery, capacitor, or other electric-energy storage device. [ELECTR] The passage of electricity through a gas, usually accompanied by a glow, arc, spark, or corona. Also known as electric discharge. [FL MECH] The flow rate of a fluid at a given instant expressed as volume per unit of time.

discharge channel [MECH ENG] The passage in a pressure-relief device through which the fluid is released to the outside of the device.

discharge coefficient [FL MECH] In a nozzle or other constriction, the ratio of the mass flow rate at the discharge end of the nozzle to that of an ideal nozzle which expands an identical working fluid from the same initial conditions to the same exit pressure. Also known as coefficient of discharge.

discharged solids See residue.

discharge head [MECH ENG] Vertical distance between the intake level of a water pump and the level at which it discharges water freely to the atmosphere.

discharge hydrograph [CIV ENG] A graph showing the discharge or flow of a stream or conduit with respect to time.

discharge key [ELEC] Device for switching a capacitor suddenly from a charging circuit to a load through which it can discharge.

discharge lamp [ELECTR] A lamp in which light is produced by an electric discharge between electrodes in a gas (or vapor) at low or high pressure. Also known as electric-discharge lamp; gas-discharge lamp; vapor lamp.

discharge liquor [CHEM ENG] Liquid that has passed through a processing operation. Also known as effluent; product.

discharge printing [GRAPHICS] A method of printing in which an electric discharge is shaped to produce characters.

discharge [TEXT] Using bleaching chemicals on a previously dyed fabric to remove the dye and thus imprint a pattern.

discharger [ELEC] A silver-impregnated cotton wick encased

in a flexible plastic tube with an aluminum mounting lug, used on aircraft to reduce precipitation static.

discharge tube [ELECTR] An evacuated enclosure containing a gas at low pressure, through which current can flow when sufficient voltage is applied between metal electrodes in the tube. Also known as electric-discharge tube. [MECH ENG] A tube through which steam and water are released into a boiler drum.

discharge-tube leak indicator [ENG] A device which detects the presence of a tracer gas by using a glass tube attached to a high-voltage source; the presence of leaked gas is indicated by the color of the electric discharge.

discharging agent [TEXT] A stripping agent such as sodium hyposulfite which is used to remove dyes from fabric that has been var-dyed or printed.

discharging arch [CIV ENG] A support built over, and not touching, a weak structural member, such as a wooden lintel, to carry the main load. Also known as relieving arch.

discifloral [BOT] Having flowers with enlarged, disklike receptacles.

disciform [BIOL] Disk-shaped.

Discinacea [INV ZOO] A family of inarticulate brachiopods in the suborder Acrotretidina.

disclimax [ECOL] A climax community that includes foreign species following a disturbance of the natural climax by man or domestic animals. Also known as disturbance climax.

discoblastula [EMBRYO] A blastula formed by cleavage of a meroblastic egg; the blastoderm is disk-shaped.

discocephalous [INV ZOO] Having a sucker on the head.

discoctaster [INV ZOO] A type of spicule with eight rays terminating in discs in hexactinellid sponges.

discoectylous [VERT ZOO] Having sucking disks on the toes.

discogastrula [EMBRYO] A gastrula formed from a blastoderm.

Discoglossidae [VERT ZOO] A family of anuran amphibians in and typical of the suborder Opisthocoela.

discoid [BIOL] 1. Being flat and circular in form. 2. Any structure shaped like a disc.

discoidal cleavage [EMBRYO] A type of cleavage producing a disc of cells at the animal pole.

Discoididae [PALEON] A family of extinct conical or globular, exocyclic Euechinoides in the order Holactypoida distinguished by the rudiments of internal skeletal partitions.

Discophilchenes [BOT] The equivalent name for Lecanorales.

Discotomidae [INV ZOO] The tropical log beetles, a family of coleopteran insects in the superfamily Cucujoidea.

discomfort glare See glare.

discomfort index See temperature-humidity index.

discomposition [NUCLEO] The process in which an atom is knocked out of its position in a crystal lattice by direct nuclear impact, as by fast neutrons or by fast ions that have been previously knocked out of their lattice positions.

discomposition effect [NUCLEO] Changes in physical or chemical properties of a substance caused by discomposition.

Also known as Wigner effect.

Discomycetes [MYCOL] A group of fungi in the class Ascomycetes in which the surface of the fruiting body is exposed during maturation of the spores.

discone antenna [ELECTROMAG] A biconical antenna in which one of the cones is spread out to 180° to form a disk; the center conductor of the coaxial line terminates at the center of the disk, and the cable shield terminates at the vertex of the cone.

disconformity [GEOLOG] Unconformity between parallel beds or strata.

disconnect [ELEC] To open a circuit by removing wires or connections, as distinguished from opening a switch to stop current flow. [ENG] To sever a connection.

disconnect fitting [ELEC] An electrical connection that can be disconnected without tools.

disconnecting switch [ELEC] A switch that isolates a circuit or piece of electrical apparatus after interruption of the current. Also known as disconnecter.

disconnecter See disconnecting switch.

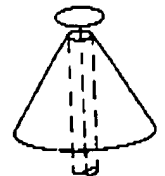
disconnecter release [ELEC] Device which disengages the

DISCINACEA



A cluster of *Discinacea*. (From R. C. Moore, ed., *Treatise on Invertebrate Paleontology*, pt. H, Geological Society of America, Inc., and University of Kansas Press, 1966)

DISCONE ANTENNA



A high-frequency discone antenna